

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES P. O'REILLY

Appeal No. 1997-3815
Application No. 08/412,037

ON BRIEF

MAILED

NOV 29 2000

PAT & TMO OFFICE
ESTABLISHED BY PATENT
AND TRADEMARK OFFICE

Before JOHN D. SMITH, GARRIS, and DELMENDO, Administrative Patent Judges.

JOHN D. SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal pursuant to 35 U.S.C. § 134 from the final rejection of claims 4 through 12.

Claim 10 is representative and is reproduced below:

A method of treating a beverage which comprises:

(i) contacting a main stream of the beverage with polyvinyl polypyrrolidone to produce a mixture of beverage and polyvinyl polypyrrolidone,

Appeal No. 1997-3815
Application No. 08/412,037

(ii) subsequently centrifuging the entire mixture of beverage and polyvinyl polypyrrolidone to remove the polyvinyl polypyrrolidone therefrom and concentrate the removed polyvinyl polypyrrolidone in a second stream,

(iii) delivering said second stream containing the polyvinyl polypyrrolidone, which has been removed by centrifuging, to a filter, collecting polyvinyl polypyrrolidone from said second stream at the filter, periodically regenerating the collected polyvinyl polypyrrolidone by contact with alkali and then washing and recycling the regenerated polyvinyl polypyrrolidone.

The references of record relied upon by the examiner are:

Perry et al. (Perry)	2,947,633	Aug. 2, 1960
Westermann et al. (Westermann)	4,166,166	Aug. 28, 1979

Appealed claims 6 through 10 stand rejected under 35 U.S.C. § 102(b) as anticipated by Westermann.

Appealed claims 4, 5, and 11 stand rejected under 35 U.S.C. § 103 as unpatentable over Westermann.

Appealed claim 12 stands rejected under 35 U.S.C. § 103 as unpatentable over Westermann in view of Perry.

Since appellant indicates that the appealed rejected claims "stand or fall together" (brief, page 3), we decide this appeal on the basis of the rejection of appealed independent claim 10 as anticipated by Westermann.

We sustain the examiner's rejections.

The subject matter on appeal is directed to a method of treating a beverage, such as beer, which comprises contacting the

beverage with polyvinyl polypyrrolidone (PVPP) and subsequently centrifuging the beverage to remove the PVPP.

An important application of appellant's process is to stabilize beer and thus enhance its storage life. Typically, as set forth in appellant's specification at page 1, when beer is stored, colloidal particles form giving the beer a hazy appearance. This development of a colloidal haze is said to be caused by the presence of polyphenolic molecules in the beer. To retard the development of such haze, a conventional prior art treatment involves the addition of a small quantity of PVPP to the beer. The PVPP serves to absorb the polyphenolic materials and, after allowing contact for sufficient length of time, the PVPP with the absorbed polyphenolic materials, is removed from the beer. It is customary in typical prior art processes to remove the PVPP from the beer by means of a very large filtration vessel incorporating a stack of filters in the form of rotatable discs. See appellant's specification at page 2, lines 6 through 8. Appellant's invention is said to involve the appreciation that a number of advantages can be achieved in such a prior art process by the use of a centrifuge, instead of the very large filtration vessel used in commercial processes, for removal of the PVPP from a beverage. At page 6 of the

specification, appellant indicates that it is believed that the present invention will provide certain advantages as compared to the existing practice, which advantages include: 1) less capital cost through avoidance of large filtration vessels; 2) less requirement for space, again through avoidance of large filtration vessels; 3) a possibility of continuous operation through the use of continuously running centrifuge delivering recovered PVPP at relatively high solids content to one of a plurality of filters; and 4) reduced damage and size reduction of PVPP particles.

The above "background" prior art raises the question as to whether or not it would have been obvious to a person of ordinary skill in this art at the time of appellant's invention to utilize a centrifuge in place of the prior art filter systems. In any subsequent prosecution of this application, the examiner should raise and resolve this principal question of obviousness, e.g., by consideration of the teachings of Westerman at column 2, lines 53-57 and column 3, lines 3-5. However, the dispositive issue on appeal herein based on the examiner's anticipation rejection of appealed claim 10 in light of the Westermann disclosures involves a narrow question of claim interpretation. Specifically, appealed claim 10 requires the steps of contacting the beverage

with PVPP and, importantly, "subsequently centrifuging the beverage to remove the polyvinyl polypyrrolidone from a main flow of the beverage, and concentrate the removed polyvinyl polypyrrolidone in a second flow."

Like the claimed invention, Westermann describes a prior art method for stabilizing a beverage, such as beer, by contacting the beverage with PVPP. Westermann does this by passing the beer through a fluidized bed of PVPP. Importantly, as shown in Westermann's Figure and as described in the patent at column 1, lines 47 through 50 and column 2, lines 48 through 57, a portion of the fluidized bed which contains "residual beer" is continuously removed through a line **6**, and this beer/PVPP stream is conducted to a wash station **7** which may include a centrifuge, where the residual beer is washed from the absorbent PVPP particles and wherein the absorbent PVPP particles are concentrated in a second flow which is delivered to a regeneration station **11**.

Appellant contends that "the main stream" of Westerman's beer leaves vessel **1** through line **5**, not through line **6** as asserted by the examiner. According to appellant, the stream exiting from vessel **1** through line **6** of Westermann is a

"side stream" which is used to remove only a portion of a mixture of PVPP and beer. Thus, appellant contends that the essence of the herein claimed invention is neither shown nor suggested by Westermann.

On the other hand, it is the examiner's position that when the relevant claim language in question, i.e., "subsequently centrifuging the beverage to remove the polyvinyl polypyrrolidone from a main flow of the beverage," is given its broadest reasonable interpretation consistent with the specification, appellant's claimed method "reads on" or covers the step in the prior art Westermann process wherein the beer/PVPP stream flows through line 6 for subsequent centrifuging at wash station 7. In short, it is the examiner's position that Westermann's beer/PVPP stream flowing through line 6 is "a main flow of the beverage" as called for by the language of the appealed method claim.

On this fundamental and dispositive issue on appeal, we agree with the examiner. First, as the examiner has pointed out Westermann does not expressly characterize stream 6, as a "concentrated slurry of PVPP and beer" as argued by appellant. Further, we point out that while appellant's specification refers to "the main flow" of a beverage, appellant's specification

Appeal No. 1997-3815
Application No. 08/412,037

contains no limiting definition as to what is "a main flow" of the beverage. Indeed the only "main flow" of a beverage in Westermann which includes the combination of beer and PVPP is found in line 6 of Westermann. In this regard, the flow in line 5 of Westermann apparently has no PVPP particles therein. Further, the only stream in the Westermann's process which is centrifuged to remove the PVPP from beer is the stream found in line 6.

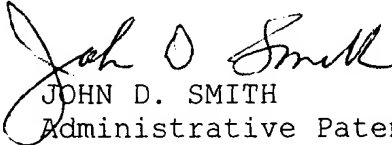
In light of the above, we sustain the examiner's stated rejection of appealed claim 10 as anticipated by Westermann. Since the appealed claims "stand or fall together," we necessarily sustain the examiner's other prior art rejections.

The decision of the examiner is affirmed.

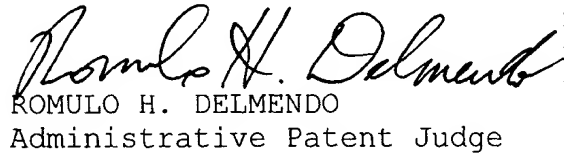
Appeal No. 1997-3815
Application No. 08/412,037

No time period for taking any subsequent action in
connection with this appeal may be extended under 37 CFR
§ 1.136(a).

AFFIRMED


JOHN D. SMITH
Administrative Patent Judge


BRADLEY R. GARRISS
Administrative Patent Judge


ROMULO H. DELMENDO
Administrative Patent Judge

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Appeal No. 1997-3815
Application No. 08/412,037

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